

LISTING OF THE CLAIMS

1. (Previously presented): A mechanical seal for sealing between a rotatable shaft and a stationary housing, the seal comprising an axially fixed, rotary seal face member for attachment to the shaft for rotation therewith and providing two axially separated and oppositely facing seal faces, first and second, axially floating, stationary seal face members arranged on axially opposite sides of said rotary seal face member and each having a seal face providing sliding contact with a respective seal face of the rotary seal face member, and means for magnetically biasing said floating seal face members towards said rotary seal face member, said axially floating seal face members and said biasing means being rotationally fixed relative to each other and said axially fixed seal face member being free to rotate relative to said axially floating seal face members, wherein said magnetically biasing means comprises one or more magnets each of which is positioned so as to urge both said axially floating stationary seal face members towards said rotary seal face member.
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Previously Presented): A mechanical seal according to claim 1 wherein said biasing means is mounted radially outwards of said seal face member.

6. (Previously Presented): A mechanical seal according to claim 1 wherein the seal includes a magnetically insulating member located between said biasing means and said axially fixed seal face member.
7. (Previously Presented): A mechanical seal according to claim 1 wherein the biasing means comprises two or more magnets circumferentially separated by a spacing element.
8. (Canceled)
9. (Previously presented): A mechanical seal according to claim 1 wherein said biasing means comprises a magnet, one end of which attracts said first axially floating seal face member and the other end of which attracts said second axially floating seal face member.
10. (Canceled)
11. (Previously Presented): A mechanical seal according to claim 1 wherein said seal includes an outer housing which contains at least one magnet secured therein.
12. (Original): A mechanical seal according to claim 11 wherein the magnet is axially flush with a shoulder on the outer housing.
13. (Canceled)
14. (Canceled)
15. (Canceled)

16. (Previously presented): A mechanical seal according to claim 11 wherein said housing is provided with a radially extending hole connecting the outermost and innermost surfaces of the housing.

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Previously Presented): A bearing protector in the form of a mechanical seal as claimed in claim 1.

38. (Previously presented): A mechanical seal according to claim 1, wherein each magnet is located radially outwards of said stationary seal face members.

39. (Withdrawn): A mechanical seal for sealing between a rotatable shaft and a stationary housing, the mechanical seal comprising:

an axially fixed, rotary seal face member configured to attach to the rotatable shaft and rotate therewith, the rotary seal face member including two axially separated and oppositely facing first seal faces;

at least one non-rotating magnet disposed radially outward of the rotary seal face member;

a first axially floating stationary seal face member arranged on a first side of the rotary seal face member and having a second seal face in sliding contact with a respective first seal face of the rotary seal face member, the first axially floating seal face member being positioned at a first end of the at least one magnet such that it is urged by each of the at least one magnet towards the rotary seal face member; and

a second axially floating stationary seal face member arranged on a second side of the rotary seal face member and having another second seal face in sliding contact with a respective first seal face of the rotary seal face member, the second axially floating stationary seal face member being positioned at a second end of the at least one magnet such that it is urged by each of the at least one magnet towards the rotary seal face member.

40. (Cancelled)

41. (Withdrawn): The mechanical seal according to claim 39 wherein the at least one magnet includes two or more magnets circumferentially separated by a spacing element.